MDNR

Litton Systems
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STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

MEMORANDUM

DATE: April 5, 1989

TO: Litton Industries File, Greene County

FROM: Mr. Kevin Kelly, Environmental Specialist
Superfund Section, Waste Management Program

SUBJECT: Litton Industries Registry Status

The Missouri Department of Natural Resources (MDNR) Laboratory Services Program sampled the above subject location on January 27, 1988. The data generated from the composite soil samples were used as evidence for this registry evaluation.

Composite soil samples were taken from a former MDNR approved land application area behind the Litton Manufacturing facility. According to the MDNR site investigation report, wastewater land application procedures were practiced at Litton Industries from 1975 to 1982. Sample analysis of the land application area revealed that a significant amount of the solvent trichloroethylene (TCE) was present in the soil. Also present in the soil were high total metal levels of chromium and lead. Off-site groundwater samples taken at Ritter Spring (88-0186) and the McCroski well, a private drinking well (88-0222) contained TCE at a level of 68 ppb and 44 ppb, respectfully. However, resampling of the McCroski well revealed TCE levels well below the detection limit (88-9374). TCE has not been directly linked to the Litton facility. Several other industries in this area of Springfield have admitted to using the solvent TCE. Because of the complex karst geology of the area, more geohydrologic studies are needed to determine the exact source of TCE contamination in the spring and well.

Trichloroethylene is defined as a RCRA (F001) hazardous waste from a non-specific source (40 CFR Sec. 261.3). TCE levels in composite sample 88-0198 were recorded at 29 ppm. This level is above previous Missouri Department of Health (MDOH) safe levels of 23.8 ppm. Total lead and chromium levels in the soil were detected at 290 ppm and 390 ppm respectively at the Litton facility. Previous MDOH safe levels for lead and chromium in the soil were listed at 230 ppm. Both metals exceed MDOH's previous safe soil level. Although the metals failed the EP toxicity test, they still can be characterized as a hazardous waste from a non-specific source (40 CFR 261.31). Specifically, they are defined as a F009 waste. It is apparent Litton's rinsewater generated in the electroplating process contained some cyanide due to the levels measured in their lagoon sludge (see attached June 20, 1980 hazardous waste registration form).

Due to the TCE, lead, and chromium levels in the soil and the above-mentioned statements that clarify each contaminant as RCRA hazardous wastes, I recommend that the Springfield Litton facility be proposed for the Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites in Missouri.

KAK:pkm